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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/799,454 | 03/11/2004 | Tony Kolberg | H0006513-1170 | 7706 |

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| EXAMINER | |
|---|---|
| PHAN, THIEM D | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3729 | |

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/799,454 | KOLBERG ET AL. | |
| | Examiner | Art Unit | |
| | Tim Phan | 3729 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) *19-36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☒ Claim(s) *18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/11/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicants' election without traverse of Group I-A, Claims 1-18, filed on 9/07/06, is acknowledged.

The Restriction mailed on 8/15/06 has been carefully reviewed and is held to be proper. Moreover Applicants did not distinctly and specifically point out any error in the Restriction Requirement. Accordingly, Claims 19-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Groups, there being no allowable generic or linking claim.

The Restriction filed on 8/15/06 is hereby **made Final**.

Applicants are required to cancel these nonelected claims (19-36) or take other appropriate action.

An Office Action on the merits of Claims 1-18 now follows.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (US 6,143,986) in view of Jacquemart (US 4,283,238).

**With regard to claim 1,** Anderson et al teach a method for easily repairing electrical harness for aircraft engine, comprising:

- trimming a damaged area of the metal overbraid (Fig. 2, 30) circumferentially around the metal overbraid wiring harness to expose a repair area (Fig. 2, 38);
- moving the metal overbraid (Fig. 2, 30) away from the repair area (Fig. 2, 38);
- covering the repair area with an electrically conductive material or splice member (Fig. 2, 32);
- moving the metal overbraid (Fig. 3, 30) over the electrically conductive material;
- overlaying the repair area with a wire screen mesh or electrically conductive material (Fig. 4, 32) wherein the repair area is completely covered by the wire screen mesh or electrically conductive material; and
- securing (Fig. 3, 48 & 50) the wire screen mesh or electrically conductive material (Fig. 2, 32) to the metal overbraid wiring harness.

Jacquemart teaches a method of reconstituting the external conductor of a coaxial cable by applying two conductive layers of metal foil tape and mess wire (Fig. 2, 6 and Fig. 5, 10) in order to create a continuous grounding or EMI protection along the cable.

It would be obvious to one of ordinary skill in the art at the time the invention was made to combine the two teachings by applying the two reconstituted external layers, as taught by Jacquemart, to the splice member of Anderson et al in order to create a continuous grounding or EMI, heat, vibration or chafing protection along the cable.

**With regard to claim 2,** Anderson et al in view of Jacquemart teach a method for easily repairing electrical harness for aircraft engine including the metal overbraid for protection against EMI, heat, vibration or chafing problems (Anderson et al; Abstract), which reads on applicants' claimed invention; except for having the overbraid as single braid.

It is mere matter of design choice to have the overbraid as single braid or multiple braid, since it is known in the art that the metal overbraid is conductive with the purpose of creating a continuous grounding or EMI, heat, vibration or chafing protection along the cable and it appears that the invention would perform equally well with the metal overbraid of single or multiple braids as an electrically conductive material with EMI, heat, vibration or chafing protection.

**With regard to claims 3-5,** Anderson et al in view of Jacquemart teach a method for easily repairing electrical harness for aircraft engine including the metal overbraid, which reads on applicants' claimed invention; except for having the overbraid as single or double braid or of repair area about 0.5 inches or being moved from about 0.5 inches from both ends of the repair area.

It is mere matter of design choice to have the overbraid as single braid or multiple braids

or of repair area about 0.5 inches or being moved from about 0.5 inches from both ends of the repair area, since it is known in the art that the metal overbraid is conductive with the purpose of creating a continuous grounding or EMI, heat, vibration or chafing protection along the cable and it appears that the invention would perform equally well with the metal overbraid of single or multiple braids or of repair area 0.5 inches more/less or being moved from 0.5 inches more/less from both ends of the repair area as an electrically conductive material with EMI, heat, vibration or chafing protection.

**With regard to claim 6,** Anderson et al teach that the metal overbraid is moved by spreading the metal overbraid and folding it back away from the repair area (Fig. 2, 30).

**With regard to claim 7,** Anderson et al teach that the metal overbraid produces individual metal strands (Fig. 2, 30).

**With regard to claim 8,** Anderson et al teach that the electrically conductive material (Fig. 1, 32) has a substantially similar conductivity to the metal overbraid (Fig. 1, 30).

**With regard to claim 9,** Jacquemart teach that the electrically conductive material is metal foil tape (Fig. 2, 6).

**With regard to claim 10,** Anderson et al teach that the electrically conductive material

(Fig. 2, 32) covers the entire repair area.

**With regard to claim 11,** Anderson et al in view of Jacquemart teach that the overlaying of the wire screen mesh (Anderson et al, Fig. 4, 32; Jacquemart, Fig. 5, 10) comprises wrapping the mesh or electrically conductive material around the harness (Fig. 3, 48 & 50), wherein there is 50% overlap of the mesh or electrically conductive material.

**With regard to claim 12,** Anderson et al in view of Jacquemart teach a method for easily repairing electrical harness for aircraft engine including the electrically conductive material as screen mesh (Fig. 5, 10), which reads on applicants' claimed invention; except for having the electrically conductive material as wire screen mesh of 1 inch in width.

It is mere matter of design choice to have the electrically conductive material as wire screen mesh of 1 inch in width, since it is known in the art that the screen mesh is conductive with the purpose of creating a continuous grounding or EMI, heat, vibration or chafing protection along the cable and it appears that the invention would perform equally well with the electrically conductive material as current screen mesh of different size.

**With regard to claims 13-15,** Anderson et al in view of Jacquemart teach a method for easily repairing electrical harness for aircraft engine with the wire screen mesh (Jacquemart, Fig. 5, 10) secured on the metal overbraid (Anderson et al, Fig. 3, 30) by securing each end of the mesh with clamps (Anderson et al, Fig. 3, 50); except for having the securing device as shrink tape of polytetrafluoroethylene and rating of from about 250.degree. F. to about 500.degree. F.

It is mere matter of design choice to have the securing device as shrink tape of polytetrafluoroethylene and rating of from about 250.degree. F. to about 500.degree. F and it appears that the invention would perform equally well with the securing device as clamps.

**With regard to claim 16,** Anderson et al in view of Jacque mart teach that the overlaying of the wire screen mesh or electrically conductive material (Jacquemart, Fig. 5, 10) provides an area that has similar flexibility and conductivity as the metal overbraid (Anderson et al, Fig. 3, 30) due to its shortness, which does not affect the flexibility of the overall cable.

**With regard to claim 17,** Anderson et al in view of Jacquemart teach a method for easily repairing electrical harness for aircraft engine with the wire screen mesh (Jacquemart, Fig. 5, 10) secured on the metal overbraid (Anderson et al, Fig. 2, 30) by clamps (Anderson et al, Fig. 3, 48); except for wrapping tape around the harness from about 0.5 inches to about 1.0 inches from both ends of the repair area after trimming the damaged area.

It would be obvious to one of ordinary skill in the art at the time the invention was made to realize that it is necessary to wrap tape around the harness from both ends of the repair area from certain length after trimming the damaged area in order to avoid shredding further strands from the overbraid.

### *Allowable Subject Matter*

4. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M - F, 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Phan
Examiner
Art Unit 3729

A. DEXTER TUGBANG
PRIMARY EXAMINER

tp
September 27, 2006